

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (canceled)

Claim 2 (previously presented) A method for decreasing cyclin-dependent kinase activity in a plant, the method comprising:

(a) introducing into a plant cell a nucleic acid molecule encoding a plant cyclin-dependent kinase inhibitor (CKI) which binds a plant cyclin-dependent kinase having a PSTAIRE cyclin-binding motif, wherein the nucleic acid molecule encoding the plant CKI is under the control of a promoter which functions in a plant cell, and wherein the CKI comprises an amino acid sequence as set forth in SEQ ID NO:34 or an amino acid sequence that is at least 87.5% identical thereto, and an amino acid sequence as set forth in SEQ ID NO:35 or an amino acid sequence that is at least 87.5% identical thereto, and an amino acid sequence as set forth in SEQ ID NO:36 or an amino acid sequence that is at least 90% identical thereto; and

(b) regenerating a plant from the plant cell, wherein the regenerated plant has decreased cyclin dependent kinase activity relative to a corresponding wild type plant.

Claims 3-4 (canceled)

Claim 5 (previously presented) A method for increasing in a plant cell, the level of cyclin-dependent kinase inhibitor (CKI) which binds a plant cyclin-dependent kinase, the method comprising:

(a) introducing into a plant cell a nucleic acid molecule encoding a plant (CKI) which binds a plant cyclin-dependent kinase having a PSTAIRE cyclin-binding motif, wherein the nucleic acid molecule encoding the plant CKI is under the control of a promoter which functions in a plant cell, and wherein the CKI comprises an amino acid sequence as set forth in SEQ ID NO:34 or an amino acid sequence that is at least 87.5% identical thereto, and an amino acid sequence as set forth in SEQ ID NO:35 or an amino acid sequence that is at least 87.5% identical thereto, and an amino acid sequence as set forth in SEQ ID NO:36 or an amino acid sequence that is at least 90% identical thereto; and

(b) expressing the nucleic acid molecule in the plant cell, thereby increasing the level of CKI in the plant cell relative to a corresponding cell of a wild type plant.

Claim 6 (canceled)

Claim 7 (previously presented): A method for increasing plant cell size, the method comprising:

(a) introducing into a plant cell a nucleic acid molecule encoding a plant cyclin-dependent kinase inhibitor (CKI) which binds a plant cyclin-dependent kinase having a PSTAIRE cyclin-binding motif, wherein the nucleic acid molecule encoding the plant CKI is under the control of a promoter which functions in a plant cell, and wherein the CKI comprises an amino acid sequence as set forth in SEQ ID NO:34 or an amino acid sequence that is at least 87.5% identical thereto, and an amino acid sequence as set forth in SEQ ID NO:35 or an amino acid sequence that is at least 87.5% identical thereto,

and an amino acid sequence as set forth in SEQ ID NO:36 or an amino acid sequence that is at least 90% identical thereto; and

(b) expressing the nucleic acid molecule in the plant cell, thereby increasing plant cell size relative to a corresponding wild type plant.

Claim 8 (previously presented): The method of claim 7 wherein the plant cell is a floral petal cell.

Claim 9 (previously presented): The method of claim 7 wherein the plant cell is a leaf cell.

Claim 10 (previously presented): The method of claim 7 wherein the plant cell is a stem cell.

Claim 11 (previously presented): A method for decreasing cell number in a plant, the method comprising:

(a) introducing into a plant cell a nucleic acid molecule encoding a cyclin-dependent kinase inhibitor (CKI) which binds a plant cyclin-dependent kinase having a PSTAIRE cyclin-binding motif, wherein the nucleic acid molecule encoding the plant CKI is under the control of a promoter which functions in a plant cell and wherein the CKI comprises an amino acid sequence as set forth in SEQ ID NO:34 or an amino acid sequence that is at least 87.5% identical thereto, and an amino acid sequence as set forth in SEQ ID NO:35 or an amino acid sequence that is at least 87.5% identical thereto, and an amino acid sequence as set forth in SEQ ID NO:36 or an amino acid sequence that is at least 90 % identical thereto; and

(b) regenerating a plant from the plant cell, wherein the regenerated plant has decreased cell number relative to a corresponding wild type plant.

Claims 12-13 (canceled)

Claim 14 (currently amended): A method of increasing leaf serration in a plant the method comprising:

(a) introducing into a plant cell a nucleic acid molecule encoding a plant cyclin-dependent kinase inhibitor (CKI) which binds a plant cyclin-dependent kinase having a PSTAIRE cyclin-binding motif, wherein the nucleic acid molecule encoding the plant CKI is under the control of a promoter which functions in a plant cell and wherein the CKI comprises an amino acid sequence as set forth in SEQ ID NO:34 or an amino acid sequence that is at least 87.5% identical thereto, and an amino acid sequence as set forth in SEQ ID NO:35 or an amino acid sequence that is at least 87.5 % identical thereto, and an amino acid sequence as set forth in SEQ ID NO:36 or an amino acid sequence that is at least 90 % identical thereto; and

(b) regenerating a plant from the plant cell, wherein the regenerated plant has increased leaf serration relative to a corresponding wild-type plant.

Claims 15-16 (canceled)

Claim 17 (previously presented): A method of increasing stomata size in a plant, the method comprising:

(a) introducing into a plant cell a nucleic acid molecule encoding a plant cyclin-dependent kinase inhibitor (CKI) which binds a plant cyclin-dependent kinase having a PSTAIRE cyclin-binding motif, wherein the nucleic acid molecule encoding the plant CKI is under the control of a promoter which functions in a plant cell and wherein the CKI comprises an amino acid sequence as set forth in SEQ ID NO:34 or an amino acid sequence that is at least 87.5% identical thereto, and an amino acid sequence as set

forth in SEQ ID NO:35 or an amino acid sequence that is at least 87.5% identical thereto, and an amino acid sequence as set forth in SEQ ID NO:36 or an amino acid sequence that is at least 90% identical thereto; and

(b) regenerating a plant from the plant cell, wherein the regenerated plant has increased stomata size relative to a corresponding wild type plant.

Claims 18-20 (canceled)

Claim 21 (previously presented): A method of reducing petal size in a plant, said method comprising:

(a) introducing into a plant cell a nucleic acid molecule encoding a plant cyclin-dependent kinase inhibitor (CKI) which binds a plant cyclin dependent kinase having a PSTAIRE cyclin-binding motif, wherein the nucleic acid molecule encoding the plant CKI is under the control of a promoter which functions in a plant cell and wherein the CKI comprises an amino acid sequence as set forth in SEQ ID NO:34 or an amino acid sequence that is at least 87.5% identical thereto, and an amino acid sequence as set forth in SEQ ID NO:35 or an amino acid sequence that is at least 87.5% identical thereto, and an amino acid sequence as set forth in SEQ ID NO:36 or an amino acid sequence that is at least 90% identical thereto; and

(b) regenerating a plant from the plant cell, wherein the regenerated plant has flowers with reduced petal size relative to a corresponding wild type plant.

Claims 22-23 (canceled)

Claim 24 (previously presented): The method of claim 21 wherein the promoter which functions in a plant cell is a petal-specific promoter.

Claim 25 (previously presented): A method of reducing leaf venation in a plant, said method comprising: (a) introducing into a plant cell a nucleic acid molecule encoding a plant cyclin-dependent kinase inhibitor (CKI) which binds a plant cyclin-dependent kinase having a PSTAIRE cyclin-binding motif, wherein the nucleic acid molecule encoding the plant CKI is under the control of a promoter which functions in a plant cell and wherein the CKI comprises an amino acid sequence as set forth in SEQ ID NO:34 or an amino acid sequence that is at least 87.5% identical thereto, and an amino acid sequence as set forth in SEQ ID NO:35 or an amino acid sequence that is at least 87.5% identical thereto, and an amino acid sequence as set forth in SEQ ID NO:36 or an amino acid sequence that is at least 90% identical thereto; and

(b) regenerating a plant from the plant cell, wherein the regenerated plant has leaves with reduced leaf venation relative to a corresponding wild type plant.

Claim 26 (canceled)

Claim 27 (previously presented): A method of decreasing endoreduplication and ploidy level in a plant cell, the method comprising:

(a) introducing into a plant cell a nucleic acid molecule encoding a plant cyclin-dependent kinase inhibitor (CKI) which binds a plant cyclin-dependent kinase having a PSTAIRE cyclin-binding motif, wherein the nucleic acid molecule encoding the plant CKI is under the control of a promoter which functions in a plant cell and wherein the CKI comprises an amino acid sequence as set forth in SEQ ID NO:34 or an amino acid sequence that is at least 87.5% identical thereto, and an amino acid sequence as set forth in SEQ ID NO:35 or an amino acid sequence that is at least 87.5% identical thereto, and an amino acid sequence as set forth in SEQ ID NO:36 or an amino acid sequence that

is at least 90% identical thereto; and

(b) expressing the nucleic acid molecule in the plant cell, thereby decreasing endoreduplication and ploidy level in the plant cell relative to a corresponding cell from a wild type plant.

Claims 28-29 (canceled)

Claim 30 (previously presented): A method of reducing plant seed size, the method comprising:

(a) introducing into a plant cell a nucleic acid molecule encoding a plant cyclin-dependent kinase inhibitor (CKI) which binds a plant cyclin-dependent kinase having a PSTAIRE cyclin-binding motif, wherein the nucleic acid molecule encoding the plant CKI is under the control of a promoter which functions in a plant cell and wherein the CKI comprises an amino acid sequence as set forth in SEQ ID NO:34 or an amino acid sequence that is at least 87.5% identical thereto, and an amino acid sequence as set forth in SEQ ID NO:35 or an amino acid sequence that is at least 87.5% identical thereto, and an amino acid sequence as set forth in SEQ ID NO:36 or an amino acid sequence that is at least 90% identical thereto; and

(b) regenerating a plant from the plant cell, wherein the regenerated plant has decreased seed size relative to a corresponding wild type plant.

Claims 31-35 (canceled)

Claim 36 (previously presented): A transgenic plant, a variety obtained therefrom, a plant part, or plant cell which comprises a nucleic acid molecule encoding a plant cyclin-dependent kinase inhibitor (CKI) which binds a plant cyclin-dependent kinase having a PSTAIRE cyclin-binding motif, wherein the nucleic acid molecule encoding the

plant CKI is under the control of a promoter which functions in a plant cell and wherein the CKI comprises an amino acid sequence as set forth in SEQ ID NO:34 or an amino acid sequence that is at least 87.5% identical thereto, and an amino acid sequence as set forth in SEQ ID NO:35 or an amino acid sequence that is at least 87.5% identical thereto, and an amino acid sequence as set forth in SEQ ID NO:36 or an amino acid sequence that is at least 90% identical thereto; and

wherein the nucleic acid molecule encoding a plant CKI is heterologous to the genome of the transgenic plant, or is homologous but additional to the genome of the transgenic plant or has been introduced into the transgenic plant, plant part or plant cell by recombinant DNA means.

Claim 37 (previously presented): The transgenic plant of claim 36 having decreased cyclin-dependent kinase activity relative to a corresponding wild type plant.

Claim 38 (previously presented): The transgenic plant of claim 36 having an increased level of CKI relative to a corresponding wild type plant.

Claim 39 (previously presented): The transgenic plant of claim 36 having altered leaf shape relative to a corresponding wild type plant.

Claim 40 (previously presented): The transgenic plant of claim 36 having leaves which are more highly serrated compared to a corresponding wild type plant.

Claim 41 (previously presented): The transgenic plant of claim 36 having leaves which are more deeply lobed than a corresponding wild type plant.

Claim 42 (canceled)

Claim 43 (previously presented): The transgenic plant of claim 36 having flowers with reduced petal size relative to flowers of a corresponding wild type plant.

Claim 44 (previously presented) The transgenic plant of claim 36 having reduced leaf venation relative to leaves of a corresponding wild type plant.

Claim 45 (previously presented): The transgenic plant of claim 36 having cells with decreased endoreduplication and ploidy levels relative to a corresponding wild type plant.

Claim 46 (canceled)

Claim 47 (previously presented): The transgenic plant of claim 36 having reduced seed size relative to a corresponding wild type plant.

Claim 48 (previously presented): The transgenic plant of claim 36, wherein the total cell number of the plant is decreased relative to a corresponding wild type plant.

Claim 49 (previously presented): The transgenic plant of claim 36, wherein at least one of petals, leaves or stems comprise cells of increased size relative to a corresponding wild type plant.

Claim 50 (previously presented): The transgenic plant of claim 36, comprising leaves with increased stomata size relative to a corresponding wild type plant.

Claim 51 (canceled)

Claim 52 (previously presented): The method of any one of claims 2, 5, 7-11, 14, 17, 21, 24, 25, 27, or 30, wherein the CKI comprises the amino acid sequence as set forth in any one of SEQ ID NO: 2, SEQ ID NO:4, or SEQ ID NO:6.

Claim 53 (previously presented): The method of any one of claims 2, 5, 7-11, 14, 17, 21, 24, 25, 27, or 30, wherein the nucleic acid molecule comprises the nucleotide sequence as set forth in any one of SEQ ID NO:1, SEQ ID NO:3, or SEQ ID NO:5.

Claim 54 (previously presented): The method of any one of claims 2, 5, 7-11, 14, 17, 21, 24, 25, 27, or 30 wherein the CKI further comprises the consensus amino acid sequence as set forth in SEQ ID NO:37 or a sequence that is at least 87.5% identical thereto, or wherein the CKI further comprises the consensus amino acid sequences as set forth in SEQ ID NO:37 or a sequence that is at least 87.5% identical thereto, and a sequence as set forth in SEQ ID NO:38 and a sequence as set forth in SEQ ID NO:39 or a sequence that is at least 75% identical thereto.

Claim 55 (previously presented): The transgenic plant of claim 36 wherein the CKI further comprises the consensus amino acid sequence as set forth in SEQ ID NO:37 or a sequence that is at least 87.5% identical thereto, or wherein the CKI further comprises the consensus amino acid sequences as set forth in SEQ ID NO:37 or a sequence that is at least 87.5% identical thereto, and a sequence as set forth in SEQ ID NO:38 and a sequence as set forth in SEQ ID NO:39 or a sequence that is at least 75% identical thereto.

Claim 56 (previously presented): Harvestable parts or propagation material from the transgenic plant of claim 36, comprising the nucleic acid molecule that was introduced into the parent plant.

Claim 57 (previously presented): Cut flowers from the transgenic plant of claim 36, comprising the nucleic acid molecule that was introduced into the parent plant.

Claims 58-92 (canceled)